

2nd. That the alliance of the *Papaveraceæ* and *Brassicaceæ* (*Cruciferae*) is, in respect of the structure of the capsule, more close than heretofore supposed; in illustration of which we find that the two-celled, many-seeded silique of *Glaucium* has its perfect analogue in that of *Brassica*, whilst the comparatively imperfect state of the one-celled, single-seeded silicule of *Isatis* in the second order, is represented in the first by the similarly-constructed capsule of *Bocconia*.

3rd. That the enunciation of the law which expresses the necessary alternation of stigmas with dissepiments (Lindley's 'Key to Structural Botany,' § 379.), and with parietal placentas, must be modified to embrace the above-described facts, and may be conveniently and correctly expressed thus: *That in syncarpous capsules, parietal placentas, and therefore dissepiments, always alternate with simple stigmas formed by single carpels, but are opposite to those which are formed by the union of the adjacent margins of contiguous carpels.*

Bath, 5 Axford's Buildings.

[*Note.*—In Kunth's 'Flora Berolinensis,' (published in 1838) we find (v. i. p. 29) the stigma of *Papaveraceæ* described as follows:—"Stigmata tot quot placentæ, cum his alternantia, magis minusve connata, \*\*\* sinubus inter stigmata sæpe ampliatis lobosque referentibus cum stigmatibus alternantes (a plurimis pro his sumptos) placentisque oppositos." In the generic description of *Papaver* (p. 30) he says, "Stigma magnum, sessile, 5-20-lobum: lobi sursum inflexi, \*\*\* marginibus stigmaticis per paria contiguos radios formantes tot quot lobi, placentis oppositos; sinubus sæpe ampliatis inque lobos productis spurios, cum legitimis alternantes." No other description of this curious structure has come under our notice\*.—*Ed. Ann. Nat. Hist.*]

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XXXVII.—*Descriptions of some new Genera and fifty unrecorded Species of Mammalia.* By J. E. GRAY, Esq., F.R.S.

MY DEAR SIR,

British Museum, Oct. 10, 1842.

I HAVE sent you for insertion in the 'Annals' the characters of the following species of Mammalia, which I believe have

\* It had escaped our attention till Mr. Howell's paper was already in type and our day of publication close at hand, that those of his observations which relate to the opposition of stigmata to placentæ in *Papaveraceæ*, and to the composition and cohesion of stigmata, had already been published by Mr. Brown in his account of the *Cyrtandraceæ* in Horsfield's 'Plantæ Javanicæ:' Mr. Howell appears not to have been aware of this fact.

In a subsequent number we shall be enabled to refer more fully to Mr. Brown's dissertation.

not hitherto been recorded. The greater part of them are in the collection of the British Museum.

Yours very truly,

R. Taylor, Esq.

J. E. GRAY.

Fam. SIMIADÆ.

*Presbytis nobilis*. Bright rufous, without any streak on the shoulders.

*Hab.* India. Brit. Mus.

This species differs from the *Simia melalophus* of Raffles in being darker, and not having a black crest; from *P. flavimanus* in being of a nearly uniform auburn, and not yellow, with a blackish back, and in having no black streak across the shoulder or on the cheek.

*Cercopithecus Burnettii*. Grayish black; head, neck, and upper part of the back yellow dotted; throat, cheek, abdomen, inner sides of fore legs and thighs grayish white; face black; hair of cheek and forehead yellow, with a small tuft of black hair over each eye; fur very thick; hairs long, rather rigid, pale at the base, then grayish black; those of the head, neck, and upper part of the back and base of the tail with two or three broad yellow-brown subterminal bands. Length of body and head, 19 inches; tail end injured.

*Hab.* Fernando Po, Thomas Thomson, Esq., R.N.

Fam. CEBIDÆ.

*Pithecia Pogonias*. The face hairy; forehead and cheek with long close-set yellow hair; face surrounded with black hair; hairs of the back and limbs blackish, with a broad white subterminal ring.

*Hab.* Brazils. Brit. Mus.

This species differs from *P. leucocephalus*, with which it agrees in having a hairy face, in the hair of the body not being pure black; and from *P. irroratus* in the face, cheeks, and forehead not being naked.

The two species of Douroucouli are evidently distinct; they may be characterized thus:—

*Nyctipithecus trivirgatus* (*N. vociferus*, Spix?). Pale; forehead with three narrow converging streaks meeting on the nape, the side ones extended on the cheek; tail rather darker.

*Hab.* Brazils. Brit. Mus.

*Nyctipithecus felinus*, Spix, *Cheirogaleus Commersonii*, Vigors and Horsfield. Gray-brown; tail blackish, reddish at the base; face and a triangular spot over each eye white, with a black streak on each side and a broad rhombic spot in the centre between them on the forehead.

*Hab.* Brazils. Brit. Mus.

*Eriodes frontatus*. Thumb of the fore hand none; reddish brown, beneath yellowish brown; forehead, elbows, knees and the upper side of the arms and of the four hands black.

Young like the adult, but with long white hairs on the cheeks and amongst the black hair on the forehead.

*Hab.* S. America. Capt. Belcher, R.N., C.B., &c. Brit. Mus.

## Fam. LEMURIDÆ.

*Lemur coronatus*. Ashy above, limbs and beneath pale yellowish; face white; orbits gray; cheeks and forehead bright rufous, with a large black spot on the crown; tail thick, end blackish.

*Hab.* Madagascar. Brit. Mus.

*Cheirogaleus Smithii*. Pale brown; streak up the nose and forehead, the chin and beneath paler; tail redder.

*Hab.* Madagascar. Brit. Mus.

This species differs from the *Ch. typicus* of Dr. A. Smith in the British Museum, in being much smaller and differently coloured, that being gray-brown; head redder brown; orbits black; cheeks and beneath white.

*Galago minor*. Pale gray; back rather browner washed, beneath whitish; tail elongate, depressed, narrow.

*Hab.* Madagascar. Brit. Mus.

Not more than half the size of *Galago Senegalensis*.

## Fam. VESPERTILIONIDÆ.

*Phyllophora megalotis*. The groove of the lower lip not fringed on the edge; fur blackish, rather paler beneath; nose-leaf large, ovate-lanceolate, longer than broad; ears very large, as long as the head, rounded; fore-arm bone 1" 3"; body and head 2 inches.

*Hab.* Brazils. Brit. Mus.

*Phyllostoma elongata*. The front of the lower lip with a large triangular space divided by a central groove; ears rounded, large; tragus slender, lanceolate; nose-leaf elongate, lanceolate, tapering.

*Hab.* Brazils. Brit. Mus.

## STURNIRA, n. g.

The tail and interfemoral membrane wanting; nose-leaf lanceolate, simple; tragus distinct, inner surface of the lips bearded on the sides; hind feet large; lower lip with a single larger wart surrounded by a series of small ones. America.

*Sturnira Spectrum*. Fur brown, with darker tips to the hairs, beneath pale whitish; membranes dark blackish.

*Hab.* Brazils. Brit. Mus.

*Rhinolophus Morio*. The front central lobe of the nose-leaf large, 3-lobed; fur reddish brown.

*Hab.* Malacca, Singapore. Brit. Mus.

Very like *R. luctus* in general appearance, but that species is described as black, with a slight ashy tinge; but perhaps the colour may have been changed by the specimen having been taken from spirits.

## SCOTOPHILUS.

I am inclined to confine this genus to the species which have the wings attached to the ankle as far as the base of the toes; as *S. Temminckii* and *S. fulvus* of Asia, which have the interfemoral membrane smooth; as *S. serotinus*, *S. discolor*, *S. Leisleri*, and *S. murinus* of Europe, and *S. lobatus* of India, which have cross lines of hair on the under side of the interfemoral membrane.

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## NOCTULINIA, n. g.

With the feet quite free, the wing being only attached to the ankle; they are otherwise like *Scotophilus*, as *N. proterus* and *N. fulvus*.

## VESPERTILIO.

This genus may be confined to the species which have the feet free, with the wings only attached to the ankles; their interfemoral membrane furnished with only a few scattered hairs, and the face short and hairy, as *V. mystacinus*, *V. Daubentonii* of Europe, *V. Caroli* of America. From these may be separated the three following genera and a new section of the subfamily which is to follow the others, in my "Revision of the Genera of Bats." See Mag. Zool. and Bot. ii. 498.

## TRILATITUS, n. g.

With the feet free, the wings being only attached to the ankles; the interfemoral membrane with distant cross bands of small tufts of hair beneath; face short, hairy; ears moderate or small, as *T. Hasseltii*, Temm., *T. macellus*, *T. Blepotis* from India, and other Asiatic species.

## KERIVOULA, n. g.

With the feet hairy above, half attached, the wing arising from the base of the toes; face short, hairy, the interfemoral membranes with cross band bearing small tuft of hair beneath, as *Vesp. Hardwickii*, Horsf., *V. picta*, Pallas, *V. tenuis*, *V. Görtneri*.

*Kerivoula griseus*. Ears moderate; fur gray, lower part of the hairs red with whitish gray tips; wings brown; face whitish; hairs rather rigid. Length of body and head, 1" 3"; fore-arm-bone, 1" 2"; of shin-bone, 5".

*Hab.* —? Brit. Mus. in spirits.

*Kerivoula Poensis*. Yellowish gray; the side of the body bright yellowish white; whitish gray on the head and neck; hair blackish at the base, with a white tip on the head, and yellowish brown tip on the body; ears moderate, half covered with close hair; tragus moderate, half ovate, blunt; heel-bone elongate, slender; thumb rather elongate, compressed.

*Hab.* Fernando Po, Thomas Thomson, Esq., R.N.

## MYOTIS, n. g.

The feet partly free; the wings attached to the base of the toes; interfemoral membranes with distinct hairy bands beneath; face elongate; ears large; tragus very long and slender, as *Myotis murinus*, *M. Bechsteinii*, and *M. Natereri* of Europe.

† † † † *Ears lateral, separate; nostrils rather tubular and separate, and more or less produced.*

## MURINA, n. g.

Head round; face elongate, hairy; nostrils produced, separate, sub-tubular; ears large; wings broad, thin; tail elongate; interfemoral membrane large, truncated, with cross lines of hair beneath; heel-

bone elongate; feet attached, the wing united to the whole length of the outer toes of each foot. Cutting teeth  $\frac{2 \cdot 2}{4}$ , small.

*M. suillus*, *Vespertilio suillus*, *Temm.*

From India, Dargellan. Brit. Mus.

#### HARPIOCEPHALUS, n. g.

Head rounded; face short, rather naked, glandular; ears moderate; wings broad, thin; feet free to the ankles, hairy to the claws; toes thick.

*H. rufus*, *Vesp. Harpia*, *Temm.*

#### CENTURIO, n. g.

Head rather large; face naked, flattened and covered with various symmetrical plaits; nostrils separate, placed on each side of a triangular subcordate plate with raised edges on the side and behind, but without any edge below; ears large, with a large separate oblique fold at the base of the upper edge of the conch, a conical erect lobule, and short denticulated tragus; limbs strong; interfemoral membranes deeply cut in; the heel-bone is short and strong; the toes of the hind feet are equal; tail none; wings broad, the membrane between the two inner fingers, and the hinder finger and the fore-arm-bone with regular parallel transverse fibres contracting the membrane into fine regular close plaits; the thumb elongate, slender. Cutting teeth  $\frac{1 \cdot 1 \cdot 1 \cdot 1}{4}$ , small, upper conical far apart, lower close, truncated; canines large; grinder large, with very acute conical tubercles; lips ciliated within at the angle of the mouth; fur soft, brown; the nostril with a high convex ovate tubercle between them, ending above and below in a slight acute tip, each surrounded on the outer side by a half ovate raised edge, bent in towards the tubercles at the tip, and bent outwards on the edge of the lip, having two tubercles on the upper part of the outer edge, each furnished with a single bristle, and giving off a slightly curved process on the middle of the upper edge, ending in a small tubercle bearing a similar bristle; the eyes are surrounded with a raised edge, with two or three similar bristles bearing tubercles; the ridge from the upper edge of the eyelid extends towards the middle of the face, and is then sharply turned up at an angle before it reaches the central line, and after a short space bent round at the top towards the outer edge of the front of the lunate cross ridges on the forehead; behind the larger upper cross ridge on the forehead is a slight cross groove with a swollen hinder edge.

The upper edge of these ridges and the tip of the lobule of the ear is dark brown and callous; the chin projects beyond the mouth and is keeled below; the cheek, chin and throat are covered with various symmetrical wrinkles, and on the middle of the chin is a rather broad, and on the top of the ridge on each side of the chin is a narrow, horny callous plate.

*Centurio senex*, the Wrinkled-faced Epaulet Bat. Pale brown; tip of the hairs whitish, beneath paler, small epaulet-like tuft on each

shoulder pure white; the membrane behind the index and middle finger transparent white; the wing near the body, the fore-arm bones and the legs covered with hair.

*Hab.* Amboyna, Capt. Belcher, R.N., C.B.

Fam. FELIDÆ.

*Leopardus griseus.* Gray. Sides with brownish gray round spots, black edged, often confluent into bands; dorsal line, belly and limbs black spotted; forehead, shoulders, feet and sides in the centre of the rings black dotted; orbits, cheeks, lip and beneath white; forehead with two, nape with five black streaks; throat with two black half-collars.

*Var.* 1. The spot separate, scarcely confluent.

*Hab.* Central America. Both varieties in Brit. Mus.

In our specimen the spots on the two sides are not similar nor equally confluent; on the left side there are three parallel oblique bands, formed of united spots; on the right side the front band alone is present, and the other spots which would form the band if united are separate, but there is a horizontal band along the side of the belly.

*Leopardus pictus.* Fulvous; sides paler, with brown spots, each surrounded with three, four or five black ones; middle of the back and upper part of the leg with oblong black spots; forehead, feet and shoulders with black dots; orbits, lips, cheeks and beneath white, black spotted; forehead with two, nape with six or seven black radiating streaks, the side ones broad with a central brownish line; back with a series of large solid spots.

*Hab.* Central America. Brit. Mus.

*Leopardus Ellioti.* Fur pale fulvous; back and head rather darker, with large irregular-shaped black spots; those on the shoulders and back larger, elongate, with a narrow dorsal line; two larger shoulder spots united to the lateral nape streak; orbits and forehead with two whitish streaks.

*Hab.* Madras. Brit. Mus.

*Leopardus Horsfieldii.* Pale yellowish, with two rows of oblong black spots on the vertebral line; sides of back with irregular unequal black spots; tail short with small round spots; beneath white, with two black bands on the throat; throat, sides of body and beneath with large black spots.

*Hab.* India, Bhotan. Mus. India House.

OSMETECTIS.

Head elongate; nose long, slender; muzzle truncated, with a sharp ridge above; toes 5·4? claw short, rather blunt, elevated; tail long, cylindrical; soles of feet —?

The Indian representative of the *Nasua*.

*Osmectis fusca*, Viverra fusca, Gray, *Illustr. Ind. Zool.* I. t. 5.

*Hab.* India. Garden of Taaje Mehal at Agra.

Only known from figures which were made under General Hardwicke's inspection from a living animal.

## Fam. URSIDÆ.

*Procyon Psora*, n. s. Yellowish brown and gray, grised; face, temples, side of neck, chest, belly and sides of body dirty yellow; forehead, cheeks under the eyes, each side of the throat and back of the ears dark blackish brown; fur rather long, close, dark brown, longer hairs yellow-white, those of the back, shoulders and head brown tipped; tail short? perhaps destroyed?

*Hab.* Sacramento California, Capt. Belcher, R.N.: called *Psora*.

The front upper tubercular grinder square, as long as broad; the second rather broader than long, slightly narrowed on the inner side; the last ovate, triangular, transverse; the teeth much worn; canines conical, not grooved; face in the skull short, broad. Length, body and head, 27 inches; tail, 3?; hind foot,  $4\frac{1}{2}$ .

## Fam. MACROPIDÆ.

*Phascogale leucopus*. Fur gray, washed with blackish; head rather redder; lips, chin, throat, chest and belly, inside of limbs and feet white; tail slender, lower half white, upper blackish brown; ears large.

*Hab.* Australia. Brit. Mus.

This species is very distinct from *P. leucogaster*, Gray, with which alone it can be confounded, in the feet being white.

## Fam. TALPIDÆ.

*Crossopus Himalayicus*. Slate-coloured black, with scattered black hairs, which are longer and white-tipped on the sides and rump; lower part of the throat and the middle of the belly rusty brown; tail elongate, scaly, with adpressed dark brown hairs above and elongate rigid whitish hairs beneath, and brown elongated rigid hairs near the tip; feet rather naked; whiskers numerous, elongate, brown; teeth white. Length of the body and head,  $5\frac{1}{2}$  inches; tail, 3; hind feet,  $\frac{3}{4}$ " nearly.

*Corsira nigrescens*. Blackish lead-colour washed with rufous; chin and beneath pale and rather more rufous; the whiskers dark; the feet and tail rather naked, scaly; the claws white; the front one elongate, compressed, acute; ears hid in the fur; cutting teeth white, brown at the tip. Length of body and head, 3" 6''' ; tail, 1" 4''' ; hind foot and claws,  $6\frac{1}{2}$  lines.

*Hab.* India. Brit. Mus.

## Fam. HYSTRICIDÆ.

*Atherura Africana*, *A. fasciculata*, Bennett, *Garden and Ménag. Zool. Soc.* 1. 175. Spines all dull steel-black; of the back strong, elongate, end compressed, angular; of the head, under parts and limbs flat, channeled; whiskers black, bristly; tail elongate, tapering, one-third the length of the body, with a tuft of wavy, compressed, elongate white quills; ears rounded, somewhat naked, black; eyes convex, black.

*Hab.* West Africa, Sierra Leone, Whitfield. Brit. Mus.

There is a living specimen of this species in the magnificent me-

nagerie of the Earl of Derby, and a dead one in the British Museum; it is very different from the figure of the Indian *A. fasciculata* figured in Hardwicke's drawing, and copied in my 'Illustrations of Indian Zoology.'

*Sphiggurus melanurus*. Spines yellow with black tips; fur blackish, with scattered yellowish gray stronger hairs covering the spines; the feet, and the bristles on the lower sides of the base, and of the whole of the middle of the tail black. Length, body and head, 15 inches; tail, 10.

*Hab.* Brazils, Lord Steuart. Brit. Mus.

This species differs from the three specimens described by Brandt in the colour of the tail.

*Alactaga Indica*, Gray. Back dusky; hairs yellow at the end and black at the tip; sides bright yellow, some of the hairs black tipped; tail yellow, some of the hairs of the tuft black tipped; the pads under the toes of the hind feet are compressed, with 3 to 5 grooves on each side, and crenated on the front edge; the pad under the sole is large, conical and smooth; the underside of the end of the tail under the tuft with a quantity of short, rather rigid, spreading hairs. Length, body and head, 3" 6<sup>m</sup>; hind feet, 2" 0<sup>m</sup>; ears, 1" 4½<sup>m</sup>; tail, 6" 0<sup>m</sup>.

*Hab.* India, Candahar, at Quettah.

It agrees with *A. acontium* in size and in the length and proportion of the hind feet, but it differs from the specimens both of it and *A. vexillaris* in the British Museum in being yellowish, and in the hairs of the tuft of the tail (which remain) being yellow with black tips, while in those species the black hairs are one-coloured to the base; and the specimens of *A. vexillaris* indicate no appearance, and *A. acontium* very slight indication, of the very peculiar form of the pads to the hind toes, so strongly developed in the Candahar specimen.

#### Fam. JERBOIDÆ.

*Pteromys Derbianus*. Blackish brown, gray grised; hairs dull black-brown with whitish tips; shoulders whitish; tail and feet black, tail round; chest, belly, inside of the limbs to the edge of the membranes grayish white; membranes nakedish below (like back above), with a straight edge to the one between the back of the thighs and the tail, and a lobe supported by a cartilage in front; head above and below, and the upper part of the neck blackish gray; cutting teeth yellow. Length, body and head, 14 inches; tail, — ?

*Hab.* W. Africa, Sierra Leone, Mr. Whitfield. Museum of the Earl of Derby.

*Sciuropterus caniceps*. Blackish brown, varied with red bay; hairs long, dark blackish, with red bay tips; outside of the legs redder, beneath reddish yellow; head iron-gray with longer black interspersed hairs; throat white; chin black; small lunate spot on the upper edge of each eye red, and roundish spots near the base of the ears bright-red; tail flattish, black, with some reddish tipped hairs, fewer near the end. Body and head, 9 inches; tail, 8½.

*Hab.* India, Dargellan, Mr. Pearson. Mus. Ind. Comp.

*Young or n. s.* About one-third smaller in length and breadth;



paler above and below; head coloured like the back, no red spot over the eye or behind the ears; tail flatter and broader.

*Hab.* India, Dargellan, Mr. Pearson. Mus. Ind. Comp.

The bones showed no indication of the specimen being young: I should call it provisionally, after my companion in my medical studies, who sent it to this country, *S. Pearsonii*.

*Sciuropterus nobilis*. Bright chestnut-brown, with yellow tips to some of the hairs, pale rufous beneath; the top of the head, the shoulders, and a narrow streak down the middle of the upper part of the back pale fulvous; parachute large.

*Hab.* India, Dargellan, Mr. Pearson. Mus. Ind. Comp.

*Sciurus splendidus*. Bright red bay; hair uniform red bay to the base; head rather paler; cheeks and chin rather paler still; throat from under the eyes, chest, belly, and inside of the limbs to the wrists pure white; whiskers and tuft of hairs on the temple black; ears somewhat naked; tail flat, two-rowed, bright red; hair one-coloured to the base.

*Hab.* —? Mus. Earl of Derby.

Size of English squirrel, but brighter red.

*Sciurus rufogularis*. Black; cheeks and side of the throat iron-gray, grisled; throat, side of the neck, shoulders, fore-legs, abdomen, inside of the thighs and the hind feet deep red; streak along each side of the body and the outer side of the thighs white.

*Hab.* China.

Very like *S. Rafflesii*, but only half the size, and has no white on the cheeks, and the shoulders and side of the neck are red.

*Sciurus rufonigra*. Black; throat, inner side of the legs and beneath bright red; an indistinct streak along each side, and the outer side of the thigh white, grisled.

*Hab.* India.

*Sciurus rufogaster*. Reddish, grisled; head, sides of the neck, and outside of the limbs leaden gray, grisled; tail and feet black; belly red.

*Hab.* Malacca.

*Sciurus atrodorsalis*. Gray; middle of the back blackish, slightly grisled; cheeks and whiskers yellowish; ears, chest, belly and under-side of limbs dull rufous; tail blackish, hair with a broad black central band.

*Hab.* Bhotan.

*Sciurus castaneoventris*, Gray. Very like *S. hippuris*, but only half the size, and the ears are gray. Var. rather paler; chin grayish, beneath yellowish red.

*Hab.* China, John Reeves, Esq.

*Sciurus caniceps*. Pale gray, grisled; back yellowish, beneath paler gray; tail long, gray, black varied, ringed, hair with three broad black bands.

*Hab.* Bhotan.

*Sciurus Belcheri*. Black, minutely dotted with bright yellow; side of the head and outside of the limbs more orange, and feet dark bay; edge of the eyes and underside of the body bright orange; lips

and throat paler; streak along the side of the body between the two colours pure black; whiskers black; ears hairy, slightly pencilled; tail flat, rather narrow, black and red varied, with long white tips to the hairs. Length, body and head,  $7\frac{1}{2}$  inches; tail,  $4\frac{1}{2}$ ; hind foot, 2.

*Hab.* Columbia, Capt. Belcher, R.N., C.B.

*Sciurus Richardsonii.* Black, brown, varied; hairs black, with a broad subcentral brown band; cheeks and the sides brown; middle of the throat, chest, belly and the inner side of the limbs white; hair of tail with long white tips; feet black; ears hairy. Length of the body and head, —?; of tail, —?

*Hab.* Honduras. Brit. Mus.

*Tamias Hindei.* Rufous brown, with three rather close black streaks on the middle of the back, the outer ones edged with a white streak, having an indistinct black edge to it on its outer side; head darker, with a reddish streak from the end of the nose inclosing the eye; throat and beneath white; feet rusty brown; hair of body dark at their base; tail roundish; hair red at the base, with a broad black subterminal band and a whitish tip; ears hairy, blackish, hinder edge and tip white. Length, body and head,  $5\frac{1}{2}$  inches; tail,  $4\frac{1}{2}$ ; hind foot,  $1\frac{1}{2}$ .

*Hab.* California, Capt. Belcher, R.N., C.B., &c. Brit. Mus.

Named in honour of Mr. Richard Brinsley Hinde, the surgeon of Captain Belcher's surveying vessel, who laboured most industriously during the voyage to collect specimens and facts connected with the countries he visited.

*Xerus trivittatus.* Dark brown, minutely grised with gray; outer sides of the limbs with longer brown hair; broad streak on each side of back, belly, cheeks, lips, throat, lower part of sides and inside of limbs white; a narrow streak on the middle of the back gray-brown; tail broad, hair whitish, with three broad black bands, one near the base and the upper one some distance from the tip.

*Hab.* India?

Easily known from the other species by the narrow vertebral band and the darker colour.

#### Fam. LEPORIDÆ.

*Dasyprocta punctata.* Uniformly grised with greenish yellow; hair black with greenish yellow rings; hair of the back scarcely elongate and ringed to the base; throat yellow; feet rather blacker.

*Hab.* South America.

*Dasyprocta nigra.* Black, grised with white; shoulder and haunches blacker; legs black; throat gray; belly rather grayer; hair of the back elongated, flattened, white at the base.

*Hab.* South America.

*Dasyprocta albida.* Whitish gray, nearly uniform, the hair of the back elongated, white at the base.

*Hab.* St. Vincent's, West Indies.

Size of a guinea-pig, *Cavia Cobaya*.

#### Fam. MURIDÆ.

#### NESOKIA, n. g.

Cutting teeth very large, flat in front and smooth; grinders 3·3;

front upper large with three cross ridges; the middle oblong, and the hinder much narrowed behind, each with two cross ridges; the front lower grinder larger, narrowed in front with three cross ridges; hinder each with two ridges, the hindermost smallest, rather narrowed behind; tail short, thick, with whorls of scales and scattered bristles; toes 4—5, moderate, the three middle subequal, long, the outer moderate; claws small, compressed; front thumb tubercular, with a rudimentary claw; ears moderate, naked.

This genus is easily known from the Rats (*Mus*) by the large size of the cutting teeth and the shortness of the tail; it appears to be intermediate between the Rats (*Mus*) and *Rhizomys*.

*Nesokia Hardwickii*, *Mus. Hardwickii*, Gray, *Mag. N. Hist.* Reddish brown, with longer dark brown hairs on the rump; sides gray and paler; hair lead-coloured at the base.

*Hab.* India, General Hardwicke.

The *Hypudeus Guira*, Langsdorf, in Brandt's 'Mem. Peters.' iii. 1835, t. 14, is very much like this animal in external appearance, and may be a second species of the genus.

#### VANDELEURIA, n. g.

Upper cutting teeth triangular, with a deep groove near the middle on the oblique front edge; grinders —? ears hairy; hind feet very long, slender, soles bald beneath; toes 4·5, long, slender, compressed, the three middle subequal, the hinder middle very long; the front outer very rudimentary, scarcely visible; the front inner weak, the hinder outer longer than the inner; claws small; tail very long, scaly, with scattered hairs, with longer more crowded hairs at the tip; fur soft, with scattered longer bristles on the back and rump.

Lives on trees in India.

Very like the American *Gerbilli* in external appearance and form of hind feet; differs from the African *Dendromys* in the form and proportion of the toes.

*Vandeleuria oleraceus*, *Mus oleraceus*, Sykes? *Walter Elliot's Madras Journ.* x. 214. n. 37. *Mus. longicaudatus*, *W. Elliot's Madras Journ.* x. 94. Chestnut-brown; back blacker; feet, lips, and beneath white; tail half as long again as the body and head, brown-olive, white below.

*Hab.* Madras, Walter Elliot of Wolf Lee.

"Lives always in bushes or trees, up which it runs with great facility."

*Arvicola Roylei*. Rufous gray, beneath gray; hair dark lead-colour at the base, gray at the top, those of the back rufous at the tip; ears moderate, rounded, hairy; tail about one-third the length of the body, covered with pale rigid hairs; the cutting teeth yellow in front, smooth, grooveless. Length of the body and head, 3" 6"; of tail, 1" 2"; of the hind feet and toes, 0" 9".

*Hab.* India (Cashmere). Brit. Mus.

The lower grinder wide in front, narrow behind; the first one has a large rhombic anterior process, and three folds on the outer side and four on the inner one; the two other grinders have three nearly

equal folds on each side, the hinder tooth being the narrowest; the first upper grinder has three equal alternating folds; the second has three on the outer and two on the inner side, and the hinder one is elongate, narrow, with three slight folds on each side, and an oblong elongated lobe behind.

Hitherto no true species of *Arvicola* has been described as inhabiting Southern Asia or South America.

*Arvicola Americana*. Fur soft, brown, rather paler beneath; tail about two-thirds the length of the body; the front cutting teeth yellow, with a slight groove on the outer edge.

*Hab.* South America. Brit. Mus.: three specimens. ???

This species is exactly like the English water-rat in appearance, but about half the size, and the skull is small in proportion. The cutting teeth of the *A. amphibia* are usually smooth, but I have one with the teeth grooved as in these specimens.

#### FAM. LEPORIDÆ.

*Lagomys rufescens*. Fur rather long, pale gray, with a bright rufous tinge, brighter on the head; base of the hairs dark lead-colour; slightly varied with black on the hinder part of the back; side of the face, middle of the throat, abdomen, inner sides of limbs and feet whitish; ears large, hairy, rounded; whiskers black, some white at the tip; claws black.

*Hab.* India, Cabul, Rocky Hills near Baker Tomb, at about 6000 or 8000 feet elevation. Very quick and wary.

This is easily known from all the other Old World species by its pale colour and rufous tinge.

#### FAM. ASPALACIDÆ.

*Rhizomys minor*. Fur gray, with browner ends, long, very silky; whiskers brown; sides of head rather browner; tail naked. Length, body and head,  $6\frac{1}{2}$  inches; tail,  $1\frac{3}{4}$ .

*Hab.* India or Cochin China?

*Gerbillus erythrourea*. Fur gray-brown, rather grised, under fur lead-coloured; chin and throat pure white; the abdomen and inner side of the limbs whitish; tail covered with rather rigid pale chestnut-brown hairs, those near the end black-tipped; whiskers black and white; the upper cutting teeth pale yellow, with a deep central groove in front; soles of the hind feet flattened; hinder half naked, with a band of hair behind the toes; the toes hairy on the edge. Length, body and head,  $5'' 3'''$ ; tail,  $4'' 3'''$ ; hind foot and toes,  $1'' 3'''$ .

*Hab.* India, Afghanistan.

#### FAM. BOVIDÆ.

*Cephalophora coronata*. Pale brown, with a narrow naked streak on the cheek; inner side of the fore legs and thighs, chin and beneath white; end of tail blackish; crown and tuft of hair between the horns bright reddish brown.

*Hab.* Western Africa, Mr. Whitfield. In the menagerie of the Earl of Derby.

*Antilope annulipes*, Aquetoun, native of *Gambia*; Bush-Goat, *English at Gambia*. Fur pale yellowish brown; orbits, lips, chin, base of the ears, chest and beneath, the inner parts of the fore legs and thighs, and a band over the hoofs white; inside of the ears, the fetlock, and a streak up the front of the fore and hind legs, and the front of the fore leg above the knee black; end of tail blackish; throat yellowish; legs slender, elongate; male horns thick, sublyrate, black, with strong knobs in front; female similar, hornless.

*Hab.* Western Africa, Mr. Whitfield. In the menagerie of the Earl of Derby.

*Antilope Scripta*, Pallas. Back with a compressed ridge of blackish hair in both sexes. The male with a high compressed ridge of long loose white hairs, extending the whole length of the back and tail.

*Hab.* Western Africa.

*Cephalophorus Ogilbyii*, *Antilope Ogilbyii*, *Waterhouse*. Splendid golden brown, beneath paler; face, ears, back of the neck with scattered black rigid hairs, which are crowded together and form a broad dorsal line; feet above the hoofs and the front part of the legs blackish; horns short, conic, thick at the base, with five or six irregular cross ridges.

*Hab.* Fernando Po, Th. Thomson, Esq., R.N.

*Capra (Ibex) Warryato*,—*Warryato* or Hill Goat of the Tamooleans, *Hardw. MSS. Icon. ined. (B.M. n. 10, 975.) t. 192, sketch improved from former by Colonel Hamilton Smith, t. 193.* Head dark brown, slightly grised with yellowish; horns short, bent back with close cross rings; the outer side rounded, the inner strongly keeled in front; the horn of the females smaller but similar.

*Hab.* India, Hardwicke. Nepal, Mr. Partridge.

Head and horns of both sexes in the Museum, presented by R. Partridge, Esq.

XXXVIII.—*Excerpta Botanica, or abridged Extracts translated from the Foreign Journals, illustrative of, or connected with, the Botany of Great Britain.* By W. A. LEIGHTON, Esq., B.A., F.B.S.E., &c.

No. 11. *On the Structure of the Nucleus of the genera Sphærophoron of the Family of the Lichenes, and Lichina of that of the Byssaceæ.* By CAMILLE MONTAGNE, M.D. (*Ann. des Sc. Nat. n. s. xv. p. 147.*)

THE apothecium of *Sphærophoron* is at first only a simple ellipsoid swelling of the extremity of a branch. If at this period this be divided longitudinally, the cavity occupied by the nucleus is observed to have a sigmoid form. This is owing to a hemispherical projection of the medullary or central layer of the thallus, representing a sort of torus, from